

REMARKS

In the office action mailed on September 3, 2003, claims 1 and 13 were rejected under 35 U.S.C. §102(e) over U.S. Published Patent Application No. 2002/0143252 (to Dunne et al.); claims 11 and 12 were rejected under 35 U.S.C. §103(a) over Dunne et al.; and claims 2 - 10 and 14 - 17 were indicated as being allowable if re-written in independent form.

Responsive to the office action, claims 1, 2, 5, 8, 13, 16 and 17 are amended herein, and new claims 18 - 24 are added.

The Dunne et al. reference discloses a variety of devices for positioning a transducer (or a mirror as shown in Figure 13) in which a movable element is driven using an alternating current in a coil that causes the movable element (which includes a magnet) to be consistently moved through a precise range of positions. As stated in Dunne et al.,

Formation of a stable, geometrically accurate image requires precise synchronization between pulse excitation of the transducer 24 and its motion, in order that the spatial orientation of each acquired image line may be precisely known.

Dunne et al., p6, ¶ 0094.

There is no disclosure, teaching or suggestion in Dunne et al. of a positioning device that will leave a movable element in a fixed position when the activation power is not applied. In fact, one of the examples in Dunne et al. discloses the use of an additional solenoid 120 (as shown in Figure 12) to cause the movable element to be returned to a single fixed position when the active positioning is turned off. The devices of Dunne et al., would therefore likely require that power be maintained to hold a movable member in a desired location.

A stated purpose of applicants' invention is to avoid such a requirement. When applicants' device is turned off, the movable element is held in place by an inertial force. The

inertial force may be overcome by turning on the positioning system, but after re-positioning, the movable element will then remain in place at the new position after the power is again turned off.

In particular, claim 1 as amended specifically requires the magnetic traction force in combination with the coefficient of friction provides a clamping force for holding the movable element in a stationary orientation when no current is passing through the current coil. The Dunne et al. includes no disclosure, teaching or suggestion of such a feature.

Claim 13 as amended also requires that the clamping force holds the movable element in a stationary orientation and that the clamping force may be overcome in moving the movable element.

New independent claim 18 requires that the beam deflecting movable element may be moved by overcoming an inertial force, that the inertial force is substantially the same at each of the plurality of positions of the beam deflecting movable element, and specifically states that the beam deflecting movable element remains in a fixed position with respect to the fixed element when the positioning means is not activated due to the presence of the inertial force. New dependent claims 19 - 24 depend from and further limit the subject matter of claim 18.

Each of claims 1 - 24, therefore is considered to be in condition for allowance. Favorable action consistent with the above is respectfully requested.

Respectfully submitted,



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